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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,083	03/01/2002	Ian Richard Joseph Bates	041618-0060	9636

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EXAMINER

KING, BRADLEY T

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,083

Applicant(s)

BATES, IAN RICHARD JOSEPH

Examiner

Bradley T King

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11302001</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The disclosure is objected to because of the following informalities: the specification does not contain the appropriate section heading nor a brief description of the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites "the normal target pressure". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 8, and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Eslinger (US#6120107).

Eslinger discloses all the limitations of the instant claims including: a control system having one or more inputs 26, 38 indicative of a vehicle operating state, and an output 44 for determining whether a compressor 14 is on-load or off-load, the system further including target means to calculate a target pressure (P, Pci, Pco) for a reservoir 20 downstream of said compressor, said output being responsive to said target means.

Regarding claim 2, see throttle input (26, 38).

Regarding claim 3, the throttle on target pressure Pco is higher than the throttle off pressure Pci.

Regarding claim 8, see column 4, lines 20-25.

Regarding claim 12, the system is capable of independent control of purge valve 40 and compressor 14.

Regarding claim 13, the selection of the target pressure (either P_{co} or P_{ci}) is carried out in real time.

Claims 1-3, 8, and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tonegawa (US#4459085).

Tonegawa discloses all the limitations of the instant claims including: a control system having one or more inputs 4 indicative of a vehicle operating state, and an output for determining whether a compressor 10 is on-load or of-load, the system further including target means to calculate a target pressure (P_1 , P_2) for a reservoir 12 downstream of said compressor, said output being responsive to said target means.

Regarding claim 2, see column 3, lines 33-36.

Regarding claim 3, the throttle on target pressure P_1 is higher than the throttle off pressure P_2 .

Regarding claim 8, a zero throttle opening would fall within the light load engine operation range.

Regarding claim 12, the system is capable of independent control of purge valve 32 and compressor 10.

Regarding claim 13, the selection of the target pressure (either P_1 or P_2) is carried out in real time.

Claims 1,6-7 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishar et al (US#6036449).

Nishar et al disclose all the limitations of the instant claims including: a control system having one or more inputs (temperature) indicative of a vehicle operating state, and an output for determining whether a compressor 12 is on-load or of-load, the system further including target means to calculate a target pressure for a reservoir downstream of said compressor, said output being responsive to said target means.

Regarding claim 7, the compressor is unloaded when temperature increases above a threshold, therefore, the target pressure is reduced from the cutout pressure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eslinger (US#6120107).

Regarding claim 4, Eslinger discloses all the limitations of the instant claim with exception to the higher target pressure being 8-10% higher. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate target pressures of Eslinger through routine calculation and/or experimentation to determine the optimum values for a particular compressed air system, thereby enhancing the performance of the system. Also note, *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 5, see figure 5.

Regarding claim 9, Eslinger discloses all the limitations of the instant claim with exception to a vehicle speed input and a vehicle engine speed input. The examiner takes official notice that vehicle engine speed and vehicle speed inputs are well known in the art and indicative of engine load as well as braking conditions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a vehicle speed input and a vehicle engine speed input in the system of Eslinger to provide a greater degree of control and function to the control unit. It is also noted, the claim fails to recite any manipulation or use of the inputs.

Regarding claim 10, Eslinger further lacks the higher target pressure being 8-10% higher. It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the appropriate target pressures of Eslinger through routine calculation and/or experimentation to determine the optimum values for a particular compressed air system, thereby enhancing the performance of the system. Also note, *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Regarding claim 11, see figure 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US# 6089831 and 5951260. Both show compressor control systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley T King whose telephone number is (703) 308-8346. The examiner can normally be reached on 11:00-7:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BTK

Robert A. Siconolfi 9/30/09
ROBERT A. SICONOLFI
PATENT EXAMINER